

Hairi Ismaili

**ALBANIAN OLIVE
CULTIVARS**

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Redactor: Albana Hudhri

Art Grafic: Flamur Hudhri

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Preface

The Life is changing ceaselessly but, and the vision of the past evolves as well. The history of the olive and its species is also revealed above. Albanian scientists have been able to refine many aspects of our past. But old olive is the only natural monument, evidence of antiquity and the identities national. It is the duty to maintain the old trees, and to create the rentable new olive groves. We need to improve the profitability of Albanian olive production. We should seek technical and scientific element possessing this impact. We must select, multiply and make available certified varieties. Because, it is possible to find and multiply individual olive without periodicity and in the other case, individuals with high percentage of oil.

How can they be stored and administered by Fermes and what are the procedures and protocol for creating new olive grove? I hope you find all the answers in this book. This is because the actual development is occupying a broad economic space making olive foundation of agriculture system, important human aspirations. And with all the difficulties, he is finding a new dimension in his development history.

The present and past of this tree remain loaded with the same symbol; “The Peace Tree, goodness and prosperity”.

The author

Introduction

This book deals with the genetic wealth of this generous tree its ancient relations with the Albanian human society, varietal diversity as a scientific bibliography which will serve the scientific institutions to contact the Albanian olive genotypes, with a lot of ancient oil mills, traces of really old olive testimonies.

I also hope that this book will be warmly welcomed by the professional olive- culturalists in love with this tree, in love with the tradition and history of the olive, which might serve as a bridge in getting to know the culture of our country. For the first time the book offers historical testimonies of the Albanian history of the olive in the Mediterranean context as a typical Albanian culture.

Meanwhile the passion for the olive and its products will make the readers recognize Albanian nature through this tree, diversity of this product and its uses.

Life is constantly changing, but the vision of the past also evolves. The history of the olive and its varieties is yet to be discovered.

Placed in the Mediterranean Basin, and belonging to the first and second favourable climatic zones of Olive trees distribution (Koppen, 1923), Albania has a variety of ecological niches and is very rich in biological and landscape olive tree diversity. This diversity is attributable to the country's geographic position as well as geological, hydrological, climatic, soil, the isolation and protection from the predominantly mountainous relief factors (average altitude is 706 m above the sea level).

Albania is a Mediterranean country where the olive tree is thought to have originated. For more than 3000 years olives and olive oil have been one of the most celebrated food products; they represent a traditionally valued source of healthy nourishment.

The ontogenetic olive cycle

Olive as all other fruit trees during its century of life, develops a series of changes to internal and external. These changes are made in a gradual manner. In the new tree, cells are added and their size enlarged. At the same time inside the cell occur other changes, changes the contents of the protoplasm and nucleus into the cells at the growth points. Later, displaying deep qualitative changes such as flowering tree etc, and the passage of these changes have been developed according to some time limits, called stages. They are characterized by classification: the embryonic stage of the youth, stage of production period and stage of old age. The passage time of these stages is related to the level of the olive tree acclimatization.

Embryonic stages. It involves time, from the formation of zygotes to the germination of the embryo. The new plant is in miniature in the embryo of the endocarp, passes this stage in

the mammalian tree and partially in the endocarp separated by pulp. To pass this stage normally, they require appropriate conditions for storage, bedding and planting.

Youth Stage. This phase starts with the new embryo germination and continues until the first flowering of the tree, fruit plantations. Since the olive tree is a heterozygous tree, the new tree originally has the features of a wild tree. Later, these features stabilize and the trees gain enduring, identical varietal traits. In these two stages, the tree is very plastic and can be oriented in the desired direction. This phenomenon is used by scientists to gain positive individual traits.

Production Stage. With the beginning of flowering the new tree has not gained its individuality. In the early years, yield is low. Fruits do not have the necessary size, shape and technological quality. Over the years they become more stable, the crown reaches the characteristic varietal size and the production stabilizes.

The stage of the old age. In the olive tree comes later than in other woody species. Influenced by varieties, on average after 200-300 years. At this stage, the annual growth rate decreases to a maximum and they begin to show dangers of its various parts. On the neck of the trunk, they are differentiating new shoots, which in many cases regenerates this olive tree again. In this way the tree performs several times the regeneration of the trunk and branches on the same neck of the trunk. The neck of the trunk increases in correlation with the age and the dynamic growth of the wood tissue. Increased wood tissue varies depending on varieties, in value 1.8 - 6 mm / year. The neck of the olive trunk never dies but only by fire, disease and physical damage. In this way a 2000 year old tree regenerates the trunk 3-4 times, on the same neck of the trunk. In this way the stages are localized and passed one after the other without knowing backwardness.

Varieties of olive

The Olive varieties are an important component of biodiversity. The term Biodiversity, or Biological Diversity in the Olea family reflects the amount, variation and variability of varieties, forms and biotypes as well as plant organisms in coexistence. Further, it shows diversity within species, between species and ecosystems. Olive has specific ecosystems wherever it is cultivated, which have been significantly transformed under the influence of human activities

The olive varieties are necessary to maintain functions as an integral part of the structure and ecosystem processes.

Olive varieties are necessary to maintain functions as an integral part of the structure and ecosystem processes. About 30% of the labor force is positioned to oliviculture as the

leading event in which one benefits from their diversity. Are those reasons that people insist to select varieties suitable for their needs to respond to typical environment conditions, and thus have created a very rich diversity.

Olive biodiversity encompasses all the components that are useful for food and agriculture, which represent typical ecosystems. Above all, olive resources have great interest, because protecting the environment and study their diversity helps to find links within each ecosystem.

Assessment of genetic variability and definition of identity is essential for germplasm maintaining and spreading. Traditionally variability of olive is evaluated on the basis of morphological features while in recent years has implemented a methodical protocol for genotypic characterization through molecular markers (SSR, AFLP).

The purpose of the activity of characterization has been the full recognition on this biological diversity through the application of a varietal characterization program; the more suitable genotypes for various agronomic requirements and good manufacturing efficiency and quality of the oil. In order to make them available for the development policies; of state economies and private farms actually the varietal wealth that has contributed to the production of oil in Albania.

Material and methods



Cultivar:

Synonyms: (local name)

Place of origin:

Distribution (locations) :

Utilization : (oil, table/ desk, double usage).

MORPHOLOGICAL CHARACTERISTICS

Tree :

Vigor : shows the tree development (weak, medium, strong)

Growth habit: is based on the vegetation distribution (vertical, semi hung, completely hung)

Canopy density : it refers to the density of branches and sprigs (open, compressed, dense, sparse).

Internodes; (short <2cm, medium 2-5cm, long > 5cm)

LEAF: Observations on the leaves of the middle of the one-year- sprigs.

SHAPE: (lanceolate , elliptic- lanceolate,-elliptic)

CURVATURE : longitudinal observation of the blade: (hyponastic, flat, epinastic)

LENGTH: (short < 5cm, medium 5-8cm, long >8cm)

WIDTH: (narrow < 1cm, medium 1-1.8cm, wide >1.8cm)

LEAF NERVATION: (flat, hyponastic, epinastic)

COLOUR: the upper side; (dark green, light green, grayish-green, grey to green, light grey)

RATIO: (length/width)

SURFACE: (small to 4 cm K, medium 4-7 cm K, big over 7 cm K)

ANGLE OF APEX: (narrow, very narrow, spread)

ANGLE OF BASE (narrow, very narrow, spread)

INFLORESCENCE: Estimations performed when 15% of flowers are in bloom, Inflorescence size, the average number of flowers, ovary abortion estimated on 50 flowers in the middle of sprig.

DIMENSIONS: (short <25mm, medium 25-35 mm, long >35 mm).

NUMBER OF FLOWERS: (low <18, medium 18-25, high >25)

STRUCTURE: (compact and short till 35 mm and 18 flowers/short and sparse, till to 35 mm and 18 flowers/ long and compact; over 35 mm and over 18flowers/ long and sparse; over 35 mm and over 18 flowers.)

SHAPE: it refers to the type of inflorescence branching: (Racemous, paniculate cymiferous , paniculate)

BRANCHING : (only 1, 2-3, >3)

AXIS SIZE (axis length I, distance of the range I)

FLOWER MUNBER ACCORDING TO RANGE : (range I, range II, range III)

FRUIT: Observation on 100 drupes on fully ripen tree.

COLOR; (green, mottled, red-wine, blackish-purple, black)

SHAPE: (spherical, ovoid, ellipsoid)

POSITION OF THE MAXIMUM TRANSVERS DIAMETER: (basal, central, apical)

SYMMETRY: (symmetric, slightly symmetric, asymmetric)

WEIGHT: (small <2 g medium 2-4g, big 4-6 g, very big >6 g)

APEX SHAPE: (pointed, sub conical, rounded)

BASE: The fruit base shape:(narrow, round, depressed),

STALK CAVITY: (small, broad)

EPICARP: (pruinose, small lenticels /big, many or spare lenticels)

Average Biometric data:

Weight (gram):

Length (mm):

Transversal diameter (mm):

ENDOCARP

The observation refer to the shape, symmetry, dimensions, position of maximum diameter the characteristics of surface, the presence and the deep of fibrous grooves, the apex and the base shape.

WEIGHT: (small <0.2g, medium 0.3-0.45g, big >0.45 g)

SHAPE: (spherical, ovoid, elliptic, elliptic/elongated)

SYMMETRY: (symmetric, slightly asymmetric, asymmetric)

POSITION OF MAXIMUM TRANSVERS DIAMETER: (basal, central, apical)

APEX: (pointed, rounded)

BASE: (pointed, rounded, tapered)

ENDOCARP SURFACE: (smooth, scabrous, rugous)

NUMBER OF FIBROUS GROOVES : (small <7, medium 7-10, lot of >10)

TERMINATION OF THE APEX: (with mucro, without mucro)

Average Biometric data:

Weight (gram):

Length (mm):

Transversal diameter (mm)

PHYSIOLOGY

ROOTING CAPACITY: (absent (0) %, low (to 30%), medium 30-50), high (< 50%)

BLOOM TIME: (early, medium, late)

COMPATIBILITY: (self-fertile, partly self-infertile, infertile)

OVARY ABORTION: (low <10%, medium 10-25%, high >25%)

RIPENESS PERIOD: (early, early autumn, medium autumn, late winter)

RIPEN: (simultaneous, escalating)

FRUIT DETTACHMENT FORCE: (weak <40N, average 40-60N, strong >60N)

FERTILITY AND TECHNOLOGIACAL CHARACTERISTICS

BEARING AGE: (fast, medium, late)

FERTILITY: (low, medium, high)

PRODUCTION: (periodic, constant)

OIL CONTENT: (low <18%, medium 18-22%, high>22%)

PARASITES

Tolerance to Verticillium Dahliae: (sensitive, resistant)

Tolerance to Cycloconium oleaginum: (sensitive, resistant)

Tolerance to Spiloea oleagina: (sensitive, resistant)

Tolerance to Pseudomonas Sevastonoii: (sensitive, resistant)

Tolerance to Bractocera oleae: (sensitive, resistant)

Tolerance to Gleosporium olivarum: (sensitive, resistant)

ABIOTIC FACTORS

COLD RESISTANCE: (sensitive, resistant)

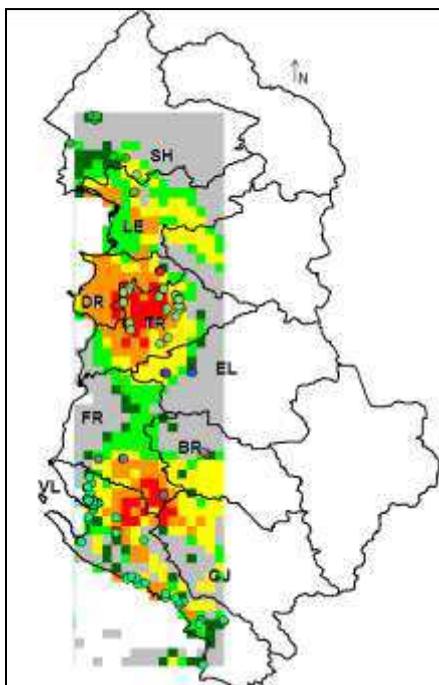
DROUGHT RESISTANCE (sensitive, resistant)

LIME RESISTANCE (sensitive, resistant)

RESULTS AND DISCUSSION

Distribution of Olive Trees in Albania

Being among the most important and extensively cultivated fruit tree crops olive grown in Albania covers the entire coast line from Konispol ($39^{\circ} 16' 35''\text{N}$; $20^{\circ} 12' 00''\text{E}$) to Koplik ($42^{\circ} 21' 56''\text{N}$; $19^{\circ} 26' 34''\text{E}$) and inland river valleys which possess olive trees, occupying near 12% of the arable land. Main geographic production zone covers the entire coastline from Konispol to Koplik (areas under influence of Adriatic & Ionian seas) and the intermediate hills and inland river valleys as Shkumbin, Osum, and Vjosa rivers. All these zones possess olive trees (Figure 1 and 2). The significance of the olive tree rests upon the existence of these old trees/groves, or has done so over recent centuries.



MIXAN *Olea europaea* L. Ssp. *Sativa*

Variety with origin in Peqini area. Destination for oil. Has large populations. Spread in Peqin and Elbasan. The tree selected for morphological and molecular analysis is 1500 years old and with geographic features: N 41:03''10.00''''', E19:49''10.01''''', H:68m.

The tree has average power, half hanging crown, branches and twigs collected and dense. One year sprig have shorter inter-joinction (1.3-2cm).

Leaf has elliptical shape with flexibility on both sides. Short length (41), and narrow (9), flat rib. Strong green color on the upper side and gray-silver on the bottom side. Ratio L / l (4.5). Small leaf surface (285mm²).

Flowering composed of short cranth (18.8). Low number of flowers (7-11), positioning (1: 7: 3). Structure compact and short. Panicle form.

The fruit has a wine red color. Ellipsoidal form, asymmetric easily. Easily weight average (2.74 g) average long (D = 19.8), the maximum transverse diameter, central (d = 7.13), Report D / d (1.4).

The pulverized Epicarp composed of more lenticels.

Endocarp has average weight (0.38g), Form elliptic oblong, slightly asymmetric, long (D = 13.3).

Maximum transversal position apical diameter (d = 6.2). Ratio D / d (2.1), Rap. Pulp / Endocarp (6.2). Endocarp smooth surface. The number of furrows fibrous average (7.3)

High rooting capacity. The average flowering time (15-25 / V), part of the peculiarity autofertil. Abort large (29%). Baking the late period (Winter). Baking staggered. Force of making poor fruit. Introduced early in production after planting. The average fertility. Known for constant average output. 28% oil. Sensitive to *Cycloconium Oleaginum*, resistant to *Pseudomonas Sevastoni*, sensitive to *Bractocera oleae*. Resistant to cold and drought.



HOLLI HIMARES (*Olea europaea* L. Ssp. *Sativa*)

SINONIME: Nisjot, Himara, Nisiot Bregu

Variety with origin from Himara. Destination for oil. Moderately large population. Spread on the coast of Vlora (Himara, Vuno, etc.). Very productive varieties. Tests were carried out in a tree aged 400 years with geographical position: N 40:08''13.01''''', E19:41''47.00''''', H:293m.

Tree very vigorous, wreath with skeletal branches (R-I) open, secondary sprigs and very dense coating and hanging sprigs. Sprigs with average inter-junction (3 to 3.6 cm).

Leaf has elliptical shape with suppleness, twisted. Hyponastic rib. The long (L = 64). And wide (l = 14.2). ratio L / l (4.5), color upper side green- bronze typical, while in bottom side silver-gray. Large surface (657 mm²).

Flowering composed of medium-long cranths (35). The number of flowers in cranth (21-23), positioning under orders (1:12:10). Tall structure and rare. Panicle form, with over 3 connector.

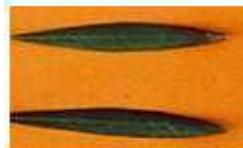
The **fruit** has wine-violet color, shape ellipsoidal. Slightly asymmetrical. Low weight (1:39 g).

Moderately long (D = 18.3), the maximum transverse diameter, central (d = 11.3) Report D / d (1.6).

The sharp peak form. Form a narrow base. Pulverized epicarp with lenticels scarce.

Endocarp has average weight (0.32g), Form elliptic oblong, slightly asymmetric, long (D = 14.5) the maximum transversal .Position apical diameter (d = 6.3). Report D / d (2.3), ratio Pulp / Endocarp, (3.3), endocarp the smooth surface. The number of furrows fibrosis slim (5.3). Beaked top Rooting minimal or zero capacity. Early flowering time (5-15 / V. Autosteril. Abort of the peculiarity average (14). Late ripening period, Winter. Annealing escalated. Strength of making fruit strong. Time of entry in production average. Fertility great. Production constant easily. 15-17% oil.

Oil with very high quality. Resistant to *Cycloconium oleaginum*, and to *Gleosporium olivarum*. Sensitive to cold. Resistant to drought and to lime.



PULAZEQIN *Olea europaea L. Ssp. Sativa*

Old variety with origin from Vlora area. Destination for oil. Average population. Prevalent in Vlora, Himara, Saranda, Delvina to Cakran, wherever is cultivated cv.Kaninjot. The tree selected for analysis has over 800 years of age and geographic position: N 40:33'36.51''', E19:29'40.52''', H:52m.

The **tree** is very powerful. Polyconic crown. Main and secondary branches in wide angle,

Twigs hanging. Inter-junction shorter (1.8cm).

Leaf elliptic-mast, the plate, the average length (L = 55-57), the average width (l = 11.9), Report L / l, (4.7), longitudinal rib plate, color strong green in the upper side, silver side on the bottom. Surface small to medium (412mm²).

Cluster length average - long (30-32). Number of flowers / cranth (22-23), positioned under the orders (1: 12: 9), the structures the long and rare; Panicle form over 3 connector.

Fruit color black -violet, oval, symmetrical, average weight (1.92g). Height (D = 22.7):

The maximum transverse diameter (d = 6.15), Report D / d (1:45), epicarp black with small lenticels.

Endocarp with average weight (0.38g). Height (D = 15.9), the central maximum transverse diameter (d = 8.1). Report D / d (2.0). Report Pulp / Endocarp (4.6) Endocarp has elliptic oblong form, symmetrical, smooth surface, number of furrows fibrosis slim (6.2).

Rooting capacity low, early flowering time (5-12 / V) Autosteril. Abort peculiarity of the seat (13). Earlier representation baking period (early autumn), simultaneous baking, average fruit Force connection. Introduced early in production after planting. Constant production. 17-18% oli. Resistant to *Cycloconium oleaginum*, sensitive to *Pseudomonas* and *Bractocera oleae*. Resistant to cold, drought and limestone soils.



KOTRUVS (*Olea europaea* L. *Ssp. Sativa*)

Variety with origin in the area of Berat. Destination oil.
Average population, spread in Berat, Patos and Mallakaster. The tree for the study is selected 500 years old and geographical position: N 40:42'02.95''', E19:59'45.52''', H:144m.

Tree vigorous, large trunk basement (7.7 m), torso regeneration III. Globes crown with flat branches, dense sprigs and hanging.

Leaf has elliptical shape, flat, average length ($L = 57$), narrow ($l = 11$). Ratio L / l (5.2). Flat longitudinal rib, green and strong in the upper side and silver-gray in the lower side. The average leaf surface (503mm^2).

Cluster has length (20-21). Number flowers / cranth average (19-21), positioned under the orders (1: 10: 9) . small white flower 4mm. With Structure compact and short. Panicle form. The fruit is red wine. There are oval shaped, symmetrical, has average weight (2.3-2.5 g. The length of fruit ($D = 17.6$), the central maximum transverse diameter ($d = 4.13$). Report D / d (1.3). Pulverized Epicarp with scarce lenticels.

Endocarp has average weight (0.35g). Diameter ($D = 12.4$), the maximum transverse diameter of the central ($D = 7.1$). ratio D / d (1.7). Elliptical shape, symmetrical, Number of furrows fibrous average (8.3). Report Pulp / Endocarp (5.4).

Average rooting capacity, early flowering time, (15-20 / V). Partly Autofertil, Miscarriage

The peculiarity, intermediate (24). Average baking time (autumn). Simultaneous baking. Force connection poor fruit. Introduced early in production. Easily constant production. 23-24% oil. Sensitive to *Cycloconium oleaginum*, resistant to *Pseudomonas Sevastonoii*, Sensitive to *Bractocera oleae*. Resistant to cold, drought.



I BARDHI KRUJES : *Olea europaea L. Ssp. Sativa*

Old variety with origin from Kruja area from which it took the name. Destination for oil. Medium-large population. Prevalent in Kruja. The tree selected for morphological and molecular description is relatively old age (300 years) and geographic position: N 41° 30'19.01", E19:48'16.00", H516m.

The tree has average power, skeletal branches in wide angle, twigs dense, semi-dependent. Inter-junction the short to medium (1.4-2.1cm). Elliptical **leaf** form. Moderately long (L = 52.7), narrow width (l = 10.1). Report L / l (5.2). Plate longitudinal rib. Green strong in the upper side and silver on the bottom side.

Cluster is short (L = 19-21). Number of plants / cranth low (9) according to Nigond (1: 6: 2). Short compact structure. Irregular form clusters.

Epicarp has black fruit with white pulp. Oval, asymmetrical. Average weight (2.6), average long (D = 21.2), the central maximum transverse diameter (d = 13.6): Report D / d (1.5) Pulverized Epicarp.

Endocarp has average weight (0.35g), long, intermediate (D = 11.8), the central maximum transverse diameter (d = 5.6). ratio D / d (2.1). Elongated elliptical shape. Slightly asymmetrical. Form a narrow base. Surface smooth, number of furrows fibrosis slim (5.8)

Rooting moderately high capacity (83). The later flowering time (1-5 / VI). Autofertil,

The peculiarity abortion average (13%), Baking late (December). The escalating. The strength of the connection that average fruit. Introduced the average production earlier. Manufacturing periodical. High in oil content (25-26%). Sensitive to *Cycloconium* and resistant to *Bractocera oleae*. Resistant to cold, drought. and lime.



KRYPS BERATI: *Olea europaea* L. Ssp. *Sativa*

The main variety for the table. Has origins from Berat area. Average large population (17%). Prevalent in Berat, Lushnje and Patos. The tree selected for the analysis is 800 years old with geographic position: N 40:42'02.98''', E19:59'46.21''', H:147m.

The tree is vigorous, trunk shows successive renewal neck basement. has greater circumference, crown with branches hanging open. Twigs strong and dense. The crown shape is globes cup shape. Inter-junction medium to long 3.4-4.2cm.

Leaf has elliptical shape, and wide swirl, long ($L = 72$), and wide $l = 16$). Strong green color on the upper side, silver-gray on the bottom side. Ratio L / l (4.5). Big surface 698 mm².

Abundant **flowering**, performed on 20 May to 5 June. 28-33mm long Cranth has 15-18 flowers, sorted according to Nigond 2-3 floors (1: 13: 9). Large flowers 5-6 mm yellow-white. Autosteril, average peculiarity abortion (10-25%).

The fruit is oval shaped. long, ($D = 27.6$), the maximum transverse diameter, central ($d = 7.21$), report ($D / d = 1.3$), Fruit symmetrical. Early baking and scalable. Average tail connection. resistance 18% oil.

Endocarp great, (0.69g), oval shaped, long ($D = 14.8$), the maximum transverse diameter, central ($d = 7.8$), the ratio $D/d = 1.9$. The number of furrows (8.7). The report Pulp / Endocarp (8,2)
Low rooting ability. Sensitive to *Bractocera oleae*, *Cycloconium oleaginum* and *Pseudomonas sevastanoi*. Resistant to cold and drought. Entry into production after planting relatively moderate (4-5 years).



KRYPS ELBASANI : *Olea europaea L. ssp.sativa*

Variety with origin in Elbasan area. Usage of dual (V / T). Has the average population - large. Prevalent in Elbasan, Peqin, Librazhd. Morphological and molecular description was carried out in a 1000 years old tree, the geographical position:

Tree moderately vigorous, trunk with large circumference, crown poly cone, branch and sprigs average rare. Average inter-junction (2,5-3,1cm).

Leaf elliptic with flexibility on both sides and twisted. Long (L = 59), average width (L = 11.1). Longitudinal rib plate, the upper side has green-gray color, in the bottom side silver-gray color. Report L / l (5.3). Big leaf surface (S = 649mm²).

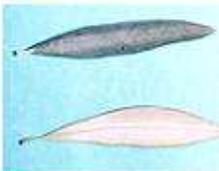
Cluster has an average length (25-27) Number of flowers in cranth, intermediate (17). Flowers order by orders (1: 8: 8) Structure compact and long. Form panicle.

Black-violet fruit, Form spherical -oval, Symmetric, average weight (4.49g) ., pulverized Epicarp with numerous lenticels. The long (D = 25.3), the maximum transverse diameter, central (d = 5.21). Rap. D / d (1.2), Rap. Pulp / Endocarp (8.4).

Endocarp has big weight (0:52 g). Long (D = 12.4), the maximum transverse diameter, central (D = 7.1), Rap. D / d (1.7), Form ovoid, symmetrical, Surface slightly tough, Number furrows fibro-vascular (7.8),

Average rooting capacity. Flowering time average early (12-25 / V). Partially autosteril,

Abortion peculiarity average. (27) Later baking (Winter). Staggered ripening. Fruit connection force average. Introduced late in production after planting. Low fertility. There are periodic output. 22% oil. Sensitive to *Cycloconium oleaginum*, and *Bractocera oleae*. Resistant to cold and drought. Resistant to lime.



KANINJOT : *Olea europaea L. ssp.sativa*.

Variety with origins from the village of Kanina in Vlora. Very large population, occupy 46% of the country's surface. Prevalent in Vlora, Saranda, Delvina, Mallakaster, Fier, Lushnje, etc. Has dual destination. Morphological and molecular analyzes were carried out in a 1200-year old tree and geographic position: N 40: 22°22.01''", E19:36°18.01''", H: 288m.

Tree powerful. Cup shape crown, voluminous with average open branch, sprigs powerful and dense. Inter-junctions medium to long (3.2-4cm).

Leaf has elliptical shape, long ($L = 63$), wider ($l = 13$). Ratio L / l (4.8). Have open green color in a top part and gray-silver in the bottom part. Average surface 555mm^2 . Apical and basal angle close.

Flourishing is abundant, conducted in the third week of May. Cluster length 35 mm, has 18 flowers (1-10-7) . Partly autofertil, peculiarity abortion (18%).

T
he fruit is slightly oval-spherical shape. Average Height ($D = 21.7$), the central maximum transverse diameter ($d = 19.9$) ratio ($D / d = 1:09$), symmetrical. Later baking and scalable. Average tail connection resistance. 26-28% oil. Report Pulp / Endocarp ($P / E-7.5$).

Endocarp has average weight (0.43g), oval shaped, long ($D = 12.7$), the maximum central transverse diameter ($d = 6.9$), ratio ($D / d = 1.8$). The number of furrows 7.3.

The ability of rooting higher (80-95%). Sensitive *Bractocera oleae*, *Cycloconium oleaginum* and *pseudomonas sevastanoi*. Resistant to the cold and drought. Entry into production after planting is relatively late.



I BARDHI TIRANES: *Olea europaea L. ssp.sativa*

Sin. bardhi Krujes; Bardhi Pobratit etc

Variety with origin in the area of Tirana. Destination for oil. Has large populations. Spread in Tirana. Morphological and molecular analyzes were carried out in a 2,500-year-old plant, geographical features: N 41:21'03.01''', E19:53'03.01''', H:241m.

The tree average powerful, on a plinth with perimeter 28 m, crown voluminous. Has branch and sprigs dense, semi-hanging. Inter-junction shorter (1.8-2cm).

Leaf has elliptical shape. Short length (L = 46), narrow width (l = 9). Ratio L / l (5.1). **Plate** longitudinal rib. Green-gray on the top side and gray on the bottom page. (S = 284mm²).

Cluster short (19-21mm) The number of flowers in cranth low (9-11), (1: 7: 3). Compact structure short. Irregular form clusters.

Fruit berthocle, with epicarp black with white pulp and numerous lenticels. Ovoid asymmetric form.. Average weight (2,4g), average length (D = 21.5): The maximum transverse diameter, central (14.6): Pulverized epicarp with multiple lenticels.

Endocarp has average weight (0.31g), average long (D = 13.9) and close (d = 6.4). Report D / d (2.2). Rap. Pulp / Endocarp (6.9). elliptic oblong shapes. Slightly asymmetrical. Form a narrow base. glare, Number few furrows fibrosis (6,7)

Rooting capacity moderately high. Time of flowering 18-30 / V. Autofertil, Peculiarity abortion average (16) Baking the later and more gradual. The strength of the fruit connection average. Introduced in early average production. Periodic production due to peacock eye defoliator (*cycloconium oleaginum*). 27-28% oil. Very sensitive to *Cycloconium oleaginum* and resistant to *Bractocera oleae*. Resistant to drought. Resistant to lime.



FRENG: *Olea europaea L. ssp.sativa*

Variety originating from the city of Kruja. Use for oil. Cultivar agronomic and technological features of special interest. The average population. Prevalent in Kruja and Tirana. The tree collected for studies has an age, approximately 1000 years, and geographic position: N 41: 30°29,01''", E19:47,54,00''", H:567m.

The tree has average power, free cup crown, branch and twig moderately rare. Inter-junctions very short (1.3cm).

Leaf has elliptical shape. The average length (51.4), average width (11.9), flat rib. Strong green color on top surface and silver-gray on the bottom side. Ratio L / l (4.3). The average leaf area (446 cm²).

Cluster short (17). The low number of flowers (11) sorted by Nigond (1: 7: 3). Compact structure, short. Panicle form.

The fruit has black color. Oval, slightly asymmetrical. The average weight (2.28), moderately long (20.7). Maximal centered large transverse diameter (14.4). Report D / d (1.4). Pulverized Epicarp and scarce lenticels.

Endocarp has average weight (12:38), long endocarp (D = 14.5), the maximum transversal diameter, apical (D = 6.6) Report D / d (2.2). Form elliptic oblong, slightly asymmetric, smooth endocarp surface.

The number of fibrous furrows average (6.6). Report Pulp / Endocarp (5). Higher rooting capacity. Flowering time average (25-30 / V), Autofertile, Low peculiarity abort (13). Late baking period (Winter).

Staggered baking. Fruit making strength big. Introduced late in production after planting. Fertility high. Production constant average, high in oil content (28%). sensitive to *Cycloconium oleaginum*, resistant to *Pseudomonas Sevastonoii*, sensitive to *Bractocera oleae*. Resistant to cold and drought.



I BARDHI LEZHES: *Olea europaea L. ssp.sativa*

Sin: Te bardhe Shkodre, Durrsi

Variety with origin from the area of Lezha. Destination for oil. Has a small population, spread in Lezhe. The tree collecting has about 1000 years age and geographic position: N 41: 51°27.01''', E 19:41°10.01''', H: 43m.

The **tree** has skeletal branches with wide angle. Conical crown average voluminous. Inter-junction average (3-4 cm).

Leaf has elliptical shape. Average length (L = 53), average width (11.5). Ratio L / l (4.6). Strait longitudinal rib. Olive-gray color on the upper side and silver on the bottom side.

Small leaf surface (S = 309mm²)

Cluster short (14.6). n: flowers / cranth the seat (9), which are listed (1: 6: 3). Short compact structure. Form irregular clusters.

Fruit berthocel with black epicarp and white pulp. Oval, slightly symmetric. Average weight 2,27gr, Medium Long (D = 19.1): The maximum transverse diameter, central (d = 14). Report D / d (1:36). Pulverized epicarp with average lenticels.

Endocarp has average weight (0.38g), long (D = 13), large (d = 6.9). Diameter D / d (1.9). Report Pulp / Endocarp (4.5). Oval shapes. Slightly asymmetrical. Form a narrow base. Surface smooth, slim Number of furrows fibrosis (5.6)

Rooting moderately high capacity. Time of flowering 5.25. Autofertil, peculiarity abortion average (14%), Baking late (December). Escalating. The strength of fruit connection average. Introduced in early average production. Manufacturing periodical. High in oil content (25%). Sensitive to Cycloconium and resistant to Bractocera, resistant to cold and drought.



PERK: *Olea europaea L. ssp.sativa*

Variety with origin from Kallmet village of Tirana. Has dual use. Has a small population. Prevalent in the area between Tirana and Kruja. Tree collecting for analysis is approximately 2500 years old and has geographic position: N 41: 25°34.01''', E19:49°04.01''', H: 167m.

Powerful **tree**. The base of the trunk with the exaggerated extent, with hollows and ovule skid with chord.

Crown voluminous cup shape. Twigs with average inter-junction (3.1cm).

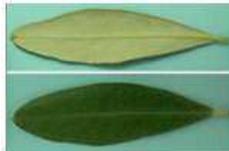
Leaf has elliptical shape, two sides bent, twisted, long ($L = 61$) and wide ($L = 13.7$). Report L / l . (4.4). Green-strong in the upper side and silver-gray in the bottom side. Leaf surface is large (613mm^2).

Cluster is moderately long. (27). The number of flowers in cranth average (19), according to Nigond 1: 9: 9), cranth with long and compact structure, form panicle.

The **fruit** is wine red color. Ovoid form, Symmetric. Average weight (3.55g), long ($D = 21.9$), wide ($D = 16.7$). Rap. D / d (1.3). Pulverized epicarp with multiple lenticels. Rap Pulp / Endocarp (7).

Endocarp has greater average weight (12:44 g). long ($D = 12.6$), the maximum transverse diameter central ($d = 7.1$). Report D / d (1.7). Oval shaped, symmetrical, with top finishes, wrinkled surface. The number of furrows average (7.7). Report Pulp / Endocarp (7)

Rooting capacity average, flowering time 20-30 / V). Partly-autofertile, the peculiarity abortion average (19). Late ripening period. Simultaneous baking, the tail connection strength is weak. Introduced early in production after planting. Production easily constant. Content on oil average (22%). Resistant to Cycloconium and Pseudomonas. Sensitive to Bractocera oleae and Gleosporium olivarum. Resistant to cold.



GANJOLLA: *Olea europaea L. ssp.sativa*

Local variety, originated from Juban village of Shkodra. Dual use. There is a small population, spread in Vau Dejës, Juban and Guri i Zi. Morphological and molecular analyzes were carried out in a 300 year old tree in the Guri i Zi village geographical features: N 42: 00°42.01''^{***}, E19:35°29.00''^{***}, H: 53m.

The tree is vigorous, has poly cone crown, voluminous, skid with large perimeter. Branch and sprigs moderately rare. Sprigs with inter-junctions average-long (3-3.2cm).

Leaf has elliptical shape, lying, moderately long ($L = 57$) and wide ($l = 11.9$). Ratio L / l (5,2). There are strong green color on top face and silver-gray on the bottom page. Average surface, (378mm²).

Cluster average long. ($L = 24$) Number of flowers average (13.7) ranked according Nigond (1: 7: 5.3), Structure long and rarely, Form panicle.

The fruit has black-violet color. Ovoid form, Symmetric. Average weight (3.62g), long ($D = 22.3$), wide ($D = 6.15$) Rap. D / d (1.4). Pulverized Epicarp with average lenticels.

Endocarp has greater average weight (12:42 g). The long ($D = 13.9$), the maximum transverse central diameter ($d = 7.1$), ratio D / d (1,9). Pulp Rap / Endocarp (7.6). Oval shaped, symmetrical, blunt, Surface smooth. The number of furrows average (7.1).

Rooting capacity average, flowering time (30 / V). Autosteril. Abort high peculiarity. (23) Period baking later. Simultaneous annealing, the connection strength of weak tail. Late intake in production, periodic output. 22% oil. Resistant to *Cycloconium* and *Pseudomonas*, sensitive to *Bractocera oleae* and *Gleosporium olivarum*. Resistant to cold, and lime.



BOÇ : *Olea europaea L. ssp.sativa*

An important variety originated from the area of Tirana. Dual destination (T/V). Small population. Prevalent in the area of Tirana. The tree selected for analysis has 2500 years of age.

Geographic position: N 41: 20°25.55''', E19:53°56.03'', H:353m.

The tree is vigorous, skid over large basement neck. Has a polyconic crown, medium-thick, multiple one-year sprig average inter-junctions (3.4 cm).

Leaf has elliptical shape swirl with hyponastic rib. Length (58). On average narrow (13). The ratio L/l (4.7). Hyponastic and longitudinal rib. Green-gray color at the top side and light gray on the open bottom side. Large surface (566mm²).

Flowering dense has average cranthes (26-27). The number of flowers / cluster low (9-13), positioned (1: 9: 6). Small flowers 5-7mm, Cranth compact and moderately short. Form clusters.

Black-violet fruit with numerous lenticels. Easily spherical shape. Easily Symmetrical. Greater average weight (31.04 g). Length (L = 22.3) central maximum transverse diameter (18.3): Rap. D / d (1.2), Pulverized Epicarp equipped with numerous lenticels.

Endocarp has greater weight (058g). Ovoid form, asymmetric. Length (D = 13.5), central position maximum transverse diameter (d = 9.6), ratio D / d (1.4). Rap. Pulp/Endocarp (6.4). Endocarp surface wrinkled. Number of furrows average (8).

Average rooting capacity, average flowering time, (15-30 / V). Autosteril. The peculiarity of the highest abortion 26- 32%. Baking period late-average. Staggered baking. The strength of the tail connection average.

Is late introduced in production after planting. Has average periodic production. Content on oil, average (21- 22%). Very sensitive to *Cycloconium oleaginum*. Sensitive to *Bractocera oleae*. Resistant to cold. Resistant to drought. Resistant to lime.



BAHUTA : *Olea europaea L. ssp.sativa*

Pema: shume e fuqishme, dege skeletore ne kende te ngushta. Kurore kupore, ne pergjithesi voluminoze. Ndernyje mesatare (3.4-3.6 cm).

GJETHJA: Forme eliptike. E rrafshte. Gjatesia eshte mesatare (L=54.5), mesatare e gjere (l=12.3). Raport L/l (4.4). Nervatura gjatesore e drejte (76), iponastike (17). Ngjyre jeshil e forte ne faqen e sipërme. Siperfaqja gjethore mesatare (S=383)

LULJA: Kranthi ka gjatesi mesatare (L=18). n^olule/kranth mesatar - ulet (14), renditur (1:9:4. Struktura kompakt i shkurter. Forme panikul.

FRUTI: Fruti berthokel, epikarp te zi dhe tul te bardhe. Forme oval, lehtesisht simetrik. Pesha mesatare 2,7gr, Mesatar i gjate (D=22.3): Diametri transversal maksimal, qendror (d=15.1). Raport D/d (1.5). Epikarp i pluhurizuar me lenticelle te pakta.

Endokarpi ka peshe te madhe (0.44g), i gjate (D=16.3), i gjere (d=6.8). Diametri D/d (2.4). Forma eliptike, simetrik, me maje, thep. Forma e bazes e ngushte. Siperfaqe e ashper, Numuri brazdave fibroze eshte mesatare (7.3)

PJEKJA: e voneshme dhe uniforme. Rezistenca e lidhjes se bishtit e dobet.

Karakteristika teknologjike: Rendiment i larte dhe prodhim periodic, abort vezori mesatar (23), Raporti Pulp/Endokarp (5.1), kapacitet rrenjhezimi i ulet-mesatar

i ndjeshem ndaj *Cycloconium oleaginum*, tolerant ndaj *Pseudomonas Sevastanoi*, i ndjeshem ndaj *Bractocera oleae*. Rezistent ndaj te ftohtit.

PËRDORIMI: Per vaj. Permbajtja mesatare ne vaj 19-21%.

ZONA E PËRHAPJES: I perhapur ne Brar, Tujan deri ne Herr te Tiranes.



BLLANIC : *Olea europaea L. ssp.sativa*

Pema: fuqi mesatare, dege ne kende te ngushta. Kurore kupore globoze, e dendur, trung me korde te shumta. Degeza te varura me nderynje te shkurtera (1.6 cm).

GJETHJA: forme eliptike-shtize. Gjethe te gjata (L=68.3), kane gjersi te ngushte (l=12). Raport L/l (5.7). Nervatura gjatesore e drejte, (87), epanistike (13). Ngjyre jeshil - gri ne faqen e sipërme. Siperfaqja gjethore e madhe (S=506)

LULJA: Kranthi ka gjatesi mesatare (19). n° lule/kranth i ulet-mesatar (13), renditur (1:8:4). Strukture kompakt dhe mesatar. Forme panikul.

FRUTI: Fruti berthokel me epikarp dhe tul te kuq vere. Forme oval, me maje konike, lehtesisht simetrik. Peshë mesatare (3.66), frut i gjate (D=25.3): Diametri transversal maksimal, qendror, mesatar (d=16.1). Raport D/d (1.6). Epikarp i pluhurizuar me lenticelle te shumta.

Endokarpi ka peshe te madhe (0.54), i gjate (D=18.1), i gjere (d=8). Diametri D/d (2.2). Raporti Pulp/Endokarp (5.8). Forma ovale pajisur me thumb.. Lehtesisht simetrik. Forma e baze e ngushte. Siperfaqe e ashper-lemuar, Numuri brazdave fibroze mesatar (7.9).

PJEKJA: shume e hershme, e njekoheshme. Rezistenca e lidhjes se bishtit shume e dobet.

Karakteristika teknologjike: mjaft i pershtatur per ullishte intensive. Hym menjehere ne prodhim pas mbjelljes. Prodhim constant, autofertil, kapacitet rrenjezimi i ulet-zero, abort vezori i vogel (7), i ndjeshem ndaj *Cycloconium oleaginum*, Rezistent ndaj *Pseudomonas Sevestanoi*, i ndjeshem ndaj *Bractocera oleae*. Rezistent ndaj thatesires.

PËRDORIMI: I pershtatshem per vaj. Ka 24% vaj ne frut.

ZONA E PËRHAPJES: Lumi i Vlores



CERJE : *Olea europaea L. ssp.sativa*

Pema: e fuqishme, ka kurore kupore globoze te rralle, dege skeletore dhe veshese te dendura. Ndernyje mesatare-gjata (3.5-4).

GJETHJA: Forme eliptike, maje dhe baze rrethore, pjeserisht e perdredhur. Gjatesia mesatare (L=55), gjersia mesatare (l=12.9). Raport L/l (4.6). Nervatura gjatesore e drejte (80), e perdredhur (17). Ngjyre jeshil i shndritshem ne faqen e sipërme. Siperfaqja gjethore mesatare-madhe (S=514)

LULJA: Kranthi i gjate (33). n°lule/kranth i ulet-mesatar (17.1) renditur (1:9:7). Ka strukture i rralle dhe i gjate. Forme panikul.

FRUTI: Fruti berthokel me epikarp i kuq -verdhe dhe pulpe roze. Forme oval, simetrik. Pesha mesatarisht e madhe (4.7), Mesatarisht i gjate (D=26.3): Diametri transversal maksimal, qendror (d=17.8). Raport D/d (1.5). Epikarp me lenticelle te shumta.

Endokarpi peshe te madhe (0.55), mesatar i gjate (D=17), i gjere (d=8). Diametri D/d (2.1). Raporti Pulp/Endokarp (7.6). Forma ovale. Lehtesisht asimetrik. Forma e bazes rrethore e vogel, maja e ngushte. Siperfaqe e lemuar, Numuri brazdave fibroze mesatare (8.2)

PJEKJA: mesatarisht e hereshme, e njekoheshme. Rezistenca e lidhjes se bishtit dobet.

Karakteristika teknologjike: Raport pulp/endocarp (7.6), futet heret ne prodhim, Abort vezori i madh (21), autosteril, prodhim periodik i ndjeshem ndaj Cycloconium, shume i ndjeshem ndaj Pseudomonas Sevastanoi dhe Bractocera oleae. Rezistent ndaj te ftohtit.

PËRDORIMI: Tryeze dhe Vaj. Permbajtja vaj ne frut mesatare (22)

ZONA E PËRHAPJES: Perhapje sporadike ne zonen e lumit te Vlores



LUNDRA : *Olea europaea L. ssp.sativa*

Pema: Ka kurore mjaft te dendur, dege ne kende te ngushta. Kurore kupore globoze, voluminoze. Ndernyje te shkurtera (1.4-1.7 cm).

GJETHJA: forme eliptike te rrafshite. Gjatesia mesatare (L=46), gjersia mesatare (l=11). Raport L/l (4.6). Nervatura gjatesore e drejte. Ngjyre jeshil e forte ne faqen e sipërme. Siperfaqja gjethore mesatare (S=312)

LULJA: Kranthi ka gjatesi mesatare (18.6). n^olule/kranth mesatar (16), renditur (1:7:8). Struktura mesatar i gjate e i dendur. Forme panikul.

FRUTI: Fruti berthokel me epikarp te zi dhe tul te zi. Forme oval, simetrik. Baza dhe maja rrethore. Pesha mesatare 1.83gr, Mesatar i gjate (D=17.7): Diametri transversal maksimal, qendror (d=12). Raport D/d (1.4). Epikarp i pluhurizuar me lenticelle te pakta.

Endokarpi peshe mesatare (0.41g), i gjate (D=12.3), i gjere (d=6.9). Diametri D/d (1.9). Raporti Pulp/Endokarp (4.5). Forma ovale. Lehtesisht asimetrik. Forma e bazes konike, maja e gjere me thumb. Siperfaqe e ashper, Numuri brazdave fibroze mesatare (8.3).

PJEKJA: mesatarisht e hereshme, e njekoheshme. Rezistenca e lidhjes se bishtit mesatare e dobet.

Karakteristika teknologjike: Rendiment vaji dhe cilesi shume e larte, autofertil, i pershtatshem per ullishte intensive, prodhim constant, abort i ulet i vezorit (9), futet heret ne prodhim, Aftesi mesatare rrenjezimi

SHUME Rezistent ndaj *Cycloconium oleaginum*, Rezistent ndaj *Pseudomonas Sevastanoi*, tolerant ndaj *Bractocera oleae*. Rezistent ndaj te ftohtitt.

PËRDORIMI: per industrine e vajit. 15-17% vaj

ZONA E PËRHAPJES: I perhapur ne jug lindje te Tiranes



KÇARR: *Olea europaea L. ssp.sativa*

ORIGJINA: MALSIA E MADHE

Pema: shume e fuqishme, dege skeletore ne kende te gjera. Kurore poli konike voluminoze. Ndernyje mesatare (3-3.3).

GJETHJA: Forme eliptike. Gjatesi mesatare (L=49.8), gjersia eshte mesatare (l=11.5). Raport L/l (4.3). Nervatura gjatesore e rrafshet (72) ne iponastike (21). Ngjyre jeshile - gri ne faqen e sipërme. Siperfaqja gjethore mesatare (S=420)

LULJA: Kranth i gjate (27.2). n^olule/kranth i ulet (13), renditur (1:8:4). Struktura i rralle dhe i gjate. Forme panikul.

FRUTI: berthokel me epikarp te kuq uthulle dhe pulpe ngjyre te bardhe-roze. Forme oval, baze dhe maje rrethore, shume simetrik. Pesha mesatare (2.9), Ka gjatesi mesatare (D=21.4), diameter transversal maksimal, qendror (d=15.2). Raport D/d (1.4). Epikarp i pluhurizuar me lenticete te vogla te shumta.

Endokarpi peshe mesatare (0.42g), i gjate (D=13.2), i gjere (d=7). Diametri D/d (1.8). Raporti Pulp/Endokarp (5.9). ka forme ovale simetrik. Forma e baze e ngushte, forma e majes konike e vogel pa sqep. Siperfaqe mesatarisht e lemuar, Numuri brazdave fibroze te pakta (6.2).

PJEKJA: mesatare e voneshme dhe e shkallezuar. Rezistenca e lidhjes se bishtit e dobet.

Karakteristika teknologjike: Autofertil, varitet shume cilesor, ka prodhim konstant, aftesi rrenjhezimi e larte (73), abort vezori te ulet 11%. Hyn shpej te prodhim, varitet me interes per te ardhmen. Rezistent ndaj *Cycloconium* dhe *Pseudomonas Sevastanoi*, i ndjeshem ndaj *Bractocera oleae*. Rezistent ndaj te ftohitt dhe ndaj thatesires.

PËRDORIMI: per vaj dhe tryeze, permбан 21% vaj ne frut.

ZONA E PËRHAPJES: I perhapur ne Malsi e madhe



MICK : *Olea europaea L. ssp.sativa*

Variety with origin in the area of Tirana. Destination for oil. Small population. Spread wherever the black olive is cultivated in Dajt area. Collecting tree is 600 years old and geographic position: N 41: 22°12.01''", E19:52°35.00''", H: 265m.

The tree has average power. The tree regeneration II or III of basement neck. Crown globes cup shape very dense. Very short inter-junction 1.2-1.5cm.

Leaf has elliptical shape, spread, average length (L = 38), narrow (l = 8.4). Longitudinal plate rib, strong green color on the upper side and silver-gray on the bottom side Report L / l (4.5). Small leaf surface (S = 224mm²).

Cluster average -long (31mm) Number of flowers in cranth; medium (19) according to Nigond (1: 12: 6), has The sparse structure and long, panicle Form.

The fruit has red-wine color. Oval, Symmetric. Low weight (1.38g), short (D = 15.3), with central maximum transverse diameter (d = 7.11). Report. D / d (1.3). Epicarp of pulverized with lenticels numerous.

Endocarp very low weight (12:22 g). Average during (D = 10,9mm), transverse diameter central maximum, close (d = 5.6). Report D / d (1.9). Rap Pulp / Endocarp (5.3). Ellipsoidal, symmetrical and sharp, smooth surface. The number of furrows average (5.1).

Rooting capacity average flowering time 20-30 / V). Autofertil, Abort peculiarity of the seat (7). Baking period average (autumn). Annealing scalable, connection strength average tail. Introducing earliest production, constant production. Fruits are rich in oil (26%). Resistant to Bractocera oleae, and Cycloconium oleaginum. The sensitive Gleosporium olivarum. Resistant to cold and drought.



NISJOT: *Olea europaea L. ssp.sativa*

Variety with origin from Patos area. Dual destination (V / T). Has a relatively large population. Spread in Patos, Berat, Mallakaster. Tree collecting for description rather old (approximately 2500 years), and geographic position: N 40: 40°25.50''', E19:38°05.74''', H:130m.

The tree is vigorous, voluminous cup shape crown. Have lying branch and multiple coating twigs. Inter-junction has average length (2.2-3.2cm).

Leaf is elliptic undulated and with suppleness lateral edges. Very long (L = 63.2), the width average (p = 1.14). Longitudinal rib plate, color green-gray in the face of the upper and silver in poshteme.Raporti side L / l (4.5). The average leaf surface (577mm²).

Cluster has average length (L = 23-25 mm) Number of flowers decrease (13.5) according Nigond (1: 6: 6,5). Has compact and short structure. Form panicle.

The fruit has a black-violet color, Form spherical-oval, Symmetric, average weight (3.57gr), **Epicarp** pulverized with multiple lenticels. Average long (D = 21.9): The maximum transverse diameter central, large (d = 3.15). Report D / d (1.4).

Endocarp has big weight (0,59 g). Average during (D = 16.7), the maximum transverse central diameter (d = 7.7), Report D / d (2.2). Form ovoid, symmetrical, Severe surface, furrows number average (7.3). Report Pulp / Endocarp (5.0).

Average rooting capacity. (57). Flowering time average early (12-23 / V). Autosteril, Peculiarity Abortion average (21). baking medium. Escalating ripening. Fruit connection strength average. Introduced later in production after planting. Low fertility. Periodic production, oil content average (22%). Sensitive to Cycloconium and Bractocera. Resistant to cold and drought. Resistant to lime.



TIRANA BLACK OLIVE: *Olea europaea L. Subsp sativa*).

Sin: Kupac

Form detected in the population of black olive, but represents molecular changes. There is more interest in spreading the quantity of oil. Originating from Brar in Tirana. Destination oil. Small population. The tree has an old age (approximately 3000 years). Geographical position: N 41° 23'46.94", E19:52"25.74", H:348m.

Tree very vigorous, polyconic large volume crown, some regenerated stumps II or III, trunk neck circumference very large (24m). Branches and sprigs moderately dense. Height of inter-junction is average, (3.4-3.6cm).

Leaf elliptical form, flat, has average length (L = 54.5), wide average (p = 3.12). Flat longitudinal Rib, strong green color on top surface and silver-gray on the bottom side.

Ratio L / l (4.4). Average surface (383mm²).

Cranth long average (L = 18) Number of flowers in the cranth low (11.2) according Nigond (1; 5: 5,2), small flowers 4-5mm. Compact structure and short, panicle form.

Fruit berthocel, black Epicarp color and red wine pulp color. Oval form, Symmetric. Weight average (2.7g), length (D = 22.3), wide (d = 1.15). Report D / d (1.5). Pulverized Epicarp with average lenticels.

Endocarp has high weight (12:44 g). long (D = 16.3), the maximum transverse diameter (d = 6.8), Report D / d (2.4) Report Pulp / Endocarp (P / E = 5.1) has elliptical shape, symmetrical, pointed, wrinkled surface. The number of furrows average (7.3).

Rooting capacity average (57). Time of flowering 25 / V). Autosteril. The peculiarity of the highest abortion (23%)

Average maturation period (autumn). Simultaneous maturity, weak tail connection strength. The introduction in early production. Content on oil average (21%). Cycloconium sensitive, tolerant to *Pseudomonas Sevastonoii*. Sensitive to *Bractocera oleae* and *Gleosporium olivarium*. Resistant to cold, and drought.



KAREN: *Olea europaea L. ssp.sativa*

Variety with origin from the area of Tirana. Destination for oil. Has an average population. Spread in Tirana and Kavaja. Tests were carried out in a plant 800 years old, with geographical position: N 41⁰11'04.00", E19:52'48.04""; H:112m.

The tree has average power, skeletal branches in moderately open angles, multiple branches and coating dependent. Inter-junctions short (1.9-2.7cm).

Leaf has elliptical shape. Average short (L = 43), and close (l = 8,9), the rib plate.

Strong green color on the upper side and silver-gray on the bottom side. Ratio L / l (4.8). Surface small leaf (237mm²).

Cluster short (13). The number of flowers of the seat (7), sorted by Nigond (1: 5: 1) .average flowers 5-7mm, the yellow. Structure compact and short. Panicle form.

The fruit has average weight (2.23g), wine red color to black. White pulp. Oval, slightly symmetric. Height average (D = 18.4): The maximum transverse diameter, central (d = 1.13), the pulverized Epicarp more lenticels. Report D / d (1.4).

Endocarp has very low weight (0.28g), the average maximum diameter (D = 12.6), the maximum transverse central diameter (d = 6.2). Form elliptic oblong, slightly asymmetric, the maximum transverse position apical diameter. Smooth Endocarp surface. The number of furrows fibrous average (5.6). Report Pulp / Endocarp (6.9)

Higher rooting capacity. The average flowering time (28 / V), partly autofertile, low peculiarity miscarriage (11%). Baking on the late period (Winter). Baking staggered. Force of making poor fruit. Introduced earlier in production after planting. Fertility average. Manufacturing periodic, high in oil content (26%). Sensitive to Cycloconium, resistant to Pseudomonas Sevastoni, sensitive to Bractocera oleae. Resistant to cold and drought.



GJYKATS : *Olea europaea L. ssp.sativa*

Variety with old origin in the area of Tirana. Dual use (V / T). There is a small population. Prevalent in the area from Ndroqi to Petrele Tirana. The tree of collecting has 800 years aged and geographical position: N 41:16''28.01''''', E19:39''20.01''''', H: 331m.

The tree has average power, Skid very strong wood. Conical pole rare crown, branches and twigs lying rare. Average long inter-junction (3.2cm).

Leaf has elliptical shape, swirl, are long ($L = 57$) and wider ($l = 13.6$), report ($L / l = 4.2$).

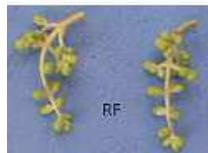
Flat longitudinal rib, the pale green-gray color on top face and silver- gray on the bottom. Large leaf surface. (609mm²).

Cranth has the average length (29), Number of flowers average (17), positioned according Nigond: (1: 9: 7), structure long and rarely, Form panicle.

The fruit has black to red color. Spherical -ovoid form, Symmetric. There the average weight (3.89g), is long ($D = 21.8$), and the central maximum transverse diameter ($d = 2.19$). Rap. D / d (1.1). Pulverized Epicarp and more lenticels.

Endocarp has greater average weight (00:47 g). Moderately long ($D = 13.1$), transverse diameter central maximum ($d = 7.9$). Rap. D / d (1.6). Oval shaped, symmetrical, blunt, the average surface wrinkled. The number of furrows average (6.7). Pulp Rap / Endocarp (7.3).

Rooting capacity low, flowering time 25-30 / V). Autosteril. The peculiarity of the highest abortion (33). Period average baking later (Winter). Staggered baking, tail connection strength weak. Introduction to production average late has periodic output. Oil content average (21%). Sensitive to Cycloconium, tolerant to Pseudomonas, sensitive to Bractocera oleae, sensitive to Gleosporium olivarum. Resistant to cold.



KUSHAN : *Olea europaea* L. ssp. *sativa*

Variety with origin from the area of Tirana. Destination for oil. Has small population. Widespread in Tirana, Durres and Kruje. Description morphological and molecular took in a tree about 600 years old, the geographical position: N 41:21'07.01''', E 19:36'00.00''', H:57m.

Tree moderately vigorous, circumference in the neck basement 2.6m. Crown globes cup shape. Branches with different angles, more powerful sprigs, dense, ½ dependent. Inter-junction average (2.4).

Leaf elliptical shape, long and wide. (L = 51.2), (l = 12.1), strong green color on the upper side and gray in the bottom side. Ratio L / l (4.2). Leafy area small to medium (S = 466mm²).

Flourishing abundant, carried out in 22 / V to 5 / VI. Cranth has average size, compact and short, panicle form, (L = 24), 13 flowers (1; 9; 3). Fertility-autofertil. Small peculiarity abortion (12%). The fruit shape oval, black-violet color. Low weight-average (2.23g), the average length short (D = 18.9) The maximum transverse diameter, central (d = 4.13), compared D / d (1.4), Symmetric. Later baking (Winter). Resistance tail connection average.

Endocarp has average weight (0.3g), oval shape, the average length (D = 12.2), transverse diameter maximum, Major (d = 6.6), the ratio D / d (1.9). The number of furrows (5.9). Report Pulp / Endocarp (6.4).

The ability of rooting higher (90-95%). Entry into production after planting relatively moderate (4-5 years).

Average production, periodic production. 28-29% oil. Sensitive to *Bractocera oleae*, *Cycloconium oleaginum* and *Pseudomonas sevestanoi*. Resistant to cold drought. Resistant to lime.



MARKS : *Olea europaea* L. ssp. *sativa*

Variety with origin in the area between Berat and Patos. Dual use. Small-average population. Prevalent in the area of Portland, Patos and Mallakaster. Tree collected, and analyzed has geographical position: N 40: 29°05.75''', E19:28°57.25''', H: 7m.

The tree has average power, globes crown, branch and twig moderately rare. Twigs with inter-junction medium-term (3.2-3,5cm).

Leaf has elliptical shape, lying, moderately long (L = 49.4) and wide (11.5). Ratio L / l (4.3). Green-strong in the face of the upper and ash-silver at the bottom page. Average surface, (S = 398mm²).

Cranth average long flowers. Number average (13) sorted by Nigond (1: 6: 6). The average structure and compact, Form panicle.

Fruit berthokel, black color. Ovoid form, Symmetric. Average weight (3.07g), long (D = 20.1), wide (D = 14.2). Rap. D / d (1.4). Pulverized epicarp of with average lenticels.

Endocarp has greater average weight (00:51 g). Long (D = 14.7) and narrow (d = 7.4). The maximum transverse diameter, central. Report D / d (2.0). Rap Pulp / Endocarp (5) oval, symmetrical, without fine, smooth surface. The number of furrows average (6.6).

Rooting capacity average, flowering time (30/V). Autosteril. The peculiarity of the highest abortion (27). Period baking later. Simultaneous annealing, bonding strength than the average tail. Average introduction into production. Manufacturing periodical. 21% oil. Resistant to *Cycloconium* and *Pseudomonas*. The sensitive *Bractocera oleae* and *Gleosporium olivarium*. Resistant to lime.



KALLMET : *Olea europaea L. ssp.sativa*

Variety with origin from Lezha villages. Dual destination (T / V). small population. Prevalent in Lezha and Shkodra. The tree collecting has an average age (300 years years), geographic position: N 41: 51°09.01''', E19:40,52.01''', H44m.

The tree is very powerful, conical crown, branches in wide angle, sprigs rare. Average inter-junctions (3.2-4.1cm).

Leaf has elliptical shape, undulated, long (63.2), wide (12.3). Hyponastic longitudinal rib, Green-gray color on the top side and bottom side silver. Ratio L / l. (5.1). Area big leaf (631cm²).

Cluster has average length (23mm), the number of flowers of the seat (13), sorted by Nigond (1: 6: 6). Flowers 4- 5mm, white-yellow color. Structure compact and average. Panicle form.

The fruit has black color. Slightly oval shape, Symmetric. Average weight (3.7g), long (21.5), the wide (17.3). Rap. D / d (1.2). The pulverized Epicarp more lenticels.

Endocarp has greater average weight (00:52 g). Rap Pulp / Endocarp (6). Moderately long (D = 13.1), the maximum transverse diameter, central (d = 8.4). Report D / d (1.6). Elliptical shape, symmetrical, the peak, average surface wrinkled. The average number of furrows (8).

Rooting capacity average flowering time 25-30 / V). Autosteril. The peculiarity abortion average (22-26%).

Average maturation period (autumn). Simultaneous annealing, the tail connection strength is weak. The introduction in early production, easily constant. Oil content on average (20%). Sensitive to Cycloconium, tolerant to Pseudomonas, sensitive Bractocera oleae, sensitive to Gleosporium olivarum. Resistant to cold and lime.



PERPËR : *Olea europaea L. ssp.sativa*

Variety with origin from Dajt area in Tirana. Dual use (V / T). Has very small population, spread in Priske, Linz Tujan and Brar in Tirana. Tree collecting for analysis has 300 years of age and geographic position: N 41: 20°25.15''', E19:53°55.57''', H: 350m.

The **tree** has average power, trunk basement wide (5.2m), torso regeneration III, semi crown hanging, with branches in moderately open angles. Inter-junction average length (3.1cm).

Leaf is average (L = 41), average width (l = 11), Report L / l (3.7). Elliptical shape, plate. Plate longitudinal rib, dark green color in the upper side and silver on the bottom side. The average leaf area (399mm²).

Cluster is tall (27mm) The number of flowers large (19), positioned according to Nigond (1: 11: 7). Compact structure and long, panicle Form.

Fruit has wine red color. Oval shaped, asymmetrical. Average weight (4.29g), long (D = 22.2), central maximum transverse diameter (d = 3.16). Rap. D / d (1.4). Epicarp of pulverized with scarce lenticels. Report Pulp / Endocarp (8.5).

Endocarp has average weight (12:42 g). long (D = 13.7) and the maximum transverse diameter of the apical (D = 5.1). Report D / d (2.7), elliptical shape, asymmetric skew fine, smooth surface. The number of furrows average (5.3).

Rooting capacity low, flowering time 25-30 / V). Autofertil, Abort peculiarity of the seat (8). Average baking period (autumn). Baking scalable, tail connection strength average. Introducing in earliest production after planting. Production easily constant. Content on oil average (18%). Resistant to *Cycloconium* and *Pseudomonas*. sensitive to *Bractocera oleae* and *Gleospodium olivarum*. Resistant to cold.



ULLIRI I KUQ: *Olea europaea L. ssp.sativa*

Variety with origin from Durres area. Destination for oil. The average population. Prevalent in Durres, Tirana and Kruja. Morphological and molecular description was realized in a tree with (400 years old) age and geographic position: N 41: 21°07.00''', E19:36'37.01''', H:57m.

The **tree** has average strength. Voluminous crown made of rare branches and average sprig. Inter-junction average length (2.7cm).

Leaf has elliptical shape, plate, average length (L = 51.1), width is average (l = 14.7).

Plate longitudinal rib, the color is light green on the upper side, gray on the bottom side. Report L / l (3.4). Average surface (511mm²).

Cluster has average dimension (L = 24). The low number of flowers (9.6), ranked according to Nigond: (1: 5,3: 3,3), is compact and short. Panicle form.

The fruit is red-violet color of epicarp and pulp, oval shaped, symmetrical, lightweight (2.1 g). Height (D = 18.1), the central maximum transverse diameter (d = 4.12). Report D / d (1.4)

Endocarp small- average (0.35g), large diameter (D = 11.4), the maximum transverse diameter (D = 6.2). Report D / d (1.8). Elliptical shape, oblong, symmetrical, sharp, narrow base. Surface smooth, number of furrows slim fibrosis (6). Report Pulp / Endocarp (5.1).

Rooting capacity high (77). The average flowering time (22 / V). Autofertil, peculiarity abortion (12%).

Baking late period (Winter). Baking escalated. The strength of the tail connection is average. Introducing in production average early. The average fertility, constant production, average in oil content (22%). Resistant to Cycloconium and to Pseudomonas. Sensitive to Bractocera oleae. Resistant to cold. Resistant to drought.



KRYPS I KRUJES : *Olea europaea L. ssp.sativa*

Old variety with origin from Kruja area from which it took the name. Destination for oil. Medium-large population. Prevalent in Kruja. The tree selected for morphological and molecular description is relatively old age (300 years) and geographic position: N 41: 30"19.01"', E19:48'16.00"', H516m.

The tree has average power, skeletal branches in wide angle, twigs dense, semi-dependent. Inter-junction the short to medium (1.4-2.1cm). Elliptical **leaf** form. Moderately long ($L = 52.7$), narrow width ($l = 10.1$). Report L / l (5.2). Plate longitudinal rib. Green strong in the upper side and silver on the bottom side.

Cluster is short ($L = 19-21$). Number of plants / cranth low (9) according to Nigond (1: 6: 2). Short compact structure. Irregular form clusters. Epicarp has black fruit with white pulp. Oval, asymmetrical. Average weight (2.6), average long ($D = 21.2$), the central maximum transverse diameter ($d = 13.6$): Report D / d (1.5) Pulverized Epicarp.

Endocarp has average weight (0.35g), long, intermediate ($D = 11.8$), the central maximum transverse diameter ($d = 5.6$). ratio D / d (2.1). Elongated elliptical shape. Slightly asymmetrical. Form a narrow base. Surface smooth, number of furrows fibrosis slim (5.8)

Rooting moderately high capacity (83). The later flowering time (1-5 / VI). Autofertil,

The peculiarity abortion average (13%), Baking late (December). The escalating. The strength of the connection that average fruit. Introduced the average production earlier. Manufacturing periodical. High in oil content (25-26%). Sensitive to *Cycloconium* and resistant to *Bractocera oleae*. Resistant to cold, drought. and lime.



NARTA *Olea europaea L. ssp.sativa*

Tree: **vigorous.** Pyramid crowns, branches and ramulas numerous and dense. Inter-junction with average size (4.3).

LEAF: elliptical form. long, (54), moderately narrow (12) straight, polisadik thick tissue. Ratio L/l (4.5). Longitudinal nerves, right (87). Strong green color on the top side. Medium leaf surface (S=465).

Cluster: has average length (28), number of flowers in Cluster, average (17), ranking (1:9:7). Medium-compact, structure. Forms panical espiciform.

FRUIT: Fruit black-violet epicarp, red wine pulp. Oval forms, symmetrical. Average weight (4.02), long (D=22.4): Transversal diameter, maximum, central (d=15.4). Ratio D/d (1.4). symmetrical fruit. more lenticels. Connecting the tail with fruit, average.

Stone: weight, medium-large (0.64), long (D=15.3), and wide (d=9.2). Diameter D/d (1.7). Pulp / Endocarp ratios (5.3). Elliptical shape, symmetrical with tip, without the beak. Shape of the base, narrow, conical. circular shape, Surface, rugueuse, Numerous fibrous, medium grooves (7.1).

MATURITY: medium. Tail resistance, strong.

Technological features: autofertil, abortion of the ovaries, low (13), high rooting ability (75), maturity, average-later, is introduced early in production, production, costant.

Resistant to Cycloconium. Resistant to cold.

USE: TABLE / OIL. There is 24-25% oil.

REGIONALIZED: Vlore, Fier, Mallakaster, Tirane



OLIVASTRA E VLORES *Olea europaea L. Subsp.*
Oleaster Hoffmans & Link

Pema: te vogel, dege dhe degeza shume te dendura. Ndernyje te shkurtera (1-1.2)

GJETHJA: forme eliptike, te drejta, gjatesi mesatare (43), mesatarisht te gjera (6.3). Raport L/l (6.9). Nervatura gjatesore e rafshte,

Jeshil e forte ne anen e sipërme. Siperfaqe gjethore te vogel ($S=224\text{mm}^2$).

LULJA: Kranthi eshte i gjate, (30). Numuri i luleve mesatarisht i madh (22), renditur sipas Nigond (1:14:7). Struktura e gjate dhe i dendur. Forme panicul spiciform.

FRUTI: ka ngjyre te zeze. Mesatar i gjate ($D=15,8$) dhe diameter transversal maksimal qendror ($d=9,7$) Raport D/d (1.6). Forme oval, Simetrik. Peshe te vogel, (1.1g). Epikarp i pluhurizuar me lenticelle te pakta..

Endokarpi ka peshe te vogel. (0.3g), Diametri i madh ($D=14,4$) dhe diametri transversal maksimal qendror ($d=6,5$). Rap D/d (2.2). Raporti Pulp/Endokarp (2.3). Forme elipsoidale, simetrik, me maje, siperfaqja e lemuar. Nuri i brazdave fibrovaskulare (5.9).

PJEKJA: mesatare e hereshme, e njekoheshme. Rezistenca e lidhjes e bishtit mesatare.

Karakteristika teknologjike: Kapacitet rrenjzues zero, Koha Autosteril. Abort vezori i larte (28). Forca e lidhjes se bishtit e dobet. Permbajtja ne vaj e ulet (11%).

I ndjeshem ndaj Cycloconium, Bractocera oleae dhe Gleosporium olivarum. Rezistent ndaj te ftohtit dhe thatesires.

PËRDORIMI: Vaj. Ka 11% vaj.

ZONA E PËRHAPJES: I perhapur ne Vlore-Sarande



OLIVASTRA E BERATIT (*Olea europaea* L. Subsp. *oleaster* Hoffmans & Link)

Pema ka fuqi te vogel, dege dhe degeza shume te dendura. Nderynje te shkurtera (1.2-1.4).

Gjethja ka forme eliptike, te drejta, gjatesi mesatare (35), mesatarisht te gjera gjera (11.7). Raport L/l (3).

Nervatura gjatesore e rafshte, Jeshil e forte
Siperfaqe gjethore e vogel (S=234).

Kranthi i gjate, (30). Numuri i luleve mesatarisht i madh (22), renditur sipas Nigond (1:14:7). Struktura e gjate dhe i dendur. Forme panicul spiciform.

Fruti ka ngjyre te zeze. Mesatar i gjate (D=15,8) dhe diameter transversal maksimal

qendror (d=10.1) Raport D/d (1.5). Forme oval, Simetrik. Peshe te vogel, (0.9g). Epikarp i pluhurizuar me lenticelle te pakta.

Endokarpi ka peshe shume te vogel. (0.22g), Diametri i madh (D=13.2) dhe diametri transversal maksimal qendror (d=5.1). Rap D/d (2.5).

Raporti Pulp/Endokarp (3.3).
Forme elipsoidale, simetrik, me maje, siperfaqja e lemuar. Numuri i brazdave fibrovaskulare (5.5).

Karakteristika teknologjike:

Kapacitet rrenjezues zero, Koha e lulezimit 25/V).

Autosteril. Abort vezori i larte (29). Periudha e pjekjes

e vone. Pjekja e njekoheshme, Forca e lidhjes e bishtit

edobet. Permbajtja ne vaj e ulet (7%). I ndjeshem ndaj

Cycloconium, Bractocera oleae dhe Gleosporium olivarum. Rezistent ndaj te ftohtit dhe thatesires.

PËRDORIMI: Vaj. 7% vaj.

ZONA E PËRHAPJES: I perhapur ne Berat, Vlore



OLIVASTRA E KRUIJES (*Olea europaea* L. Subsp. *Oleaster* Hoffmans & Link)

Variety with origin from ancient olive grove of Kruja. Destination for oil. Average population. Spread wherever is the Krypsi of Kruja. Tree analyzed 700 years of age and geographic position: N 41: 30°10.01', E 19:48°09.01', H: 505m.

The **tree** has low strength; crown tip bushes cup shape, short trunk and neck with 6.7ml perimeter. Sprig with shorter inter-junction (1.6).

Leaf has elliptical – spear shape, straight, average length ($L = 53.4$), wide ($l = 15.5\text{mm}$). Plate longitudinal Rib, Color light olive in the upper side and gray on the bottom side, Surface Average leaf ($S = 523\text{mm}^2$).

Cluster has average length (22), Number of flowers average (13.4), ranked according to Nigond (1: 8: 4,4) Short structure and rare. Form panicle.

The **fruit** has wine red color. Cylindrical form, symmetrical. Low weight (1.1 g), large diameter

($D = 14.7$) and the central maximum transverse diameter ($d = 3.11$). Report D / d (1.3). The pulverized epicarp with scarce lenticels.

Endocarp has average weight. (0.34g). moderately long ($D = 11.3$), the maximum transverse diameter central ($d = 6.8$). Rap D / d (1.7). Report Pulp / Endocarp (2.2). Ellipsoidal, symmetrical, sharp, smooth surface. Scarce number of furrows (6.7).

Rooting capacity very low, timing of flowering 30 / V). Autosteril. high peculiarity abort. (28) late baking period. Simultaneous annealing, the tail connection strength is weak. Content on oil lower (8%). Sensitive to Cicloconium, Bractocera and Gleosporium. Resistant to cold and drought.



OLIVASTER CILINDRIKE ELBASANI (*Olea europaea* L.
Subsp. Oleaster Hoffmans & Link)

Variety with origin from Elbasan area. Destination oil. Has a small population, spread in the area between Elbasan and Peqini. Pollinating good for cv. Mizan and Kryps Elbasan. Collecting tree has 600 years of age and geographic position: N 41: 03°13.01''', E19:56°44.01''', H: 83m

The **tree** is moderately large force, polyconic, dense branches and twigs lying in the side direction and hanging. Inter-junction moderately long (2.7 cm).

Leaf elliptical shape, fair, average length ($L = 43$), narrow ($p = 7.2$). Report L / l (5.9). plate longitudinal Rib, strong green color on the upper side and gray on the lower side., small leaf surface ($S = 213\text{mm}^2$).

Cluster has average length (21). The number of flowers large (17), ranked according to Nigond (1: 8: 8), Structure dense. Form long and panicle. The fruit color black. Low weight (1.1g). Long oval form ($D = 19.3\text{mm}$), the central maximum transverse diameter ($d = 8.2$). Report D / d (2:35). Symmetric. Pulverized epicarp.

Endocarp has average weight (0.29g). length ($D = 17.2$), the central maximum transverse diameter ($d = 6$). Rap. D / d (2.8). Report P / E (2.8). Form ellipsoidal, symmetrical, with fine, smooth surface. The number of furrows average (5.4).

Rooting capacity very low, timing of flowering 30 / V). Autosteril. Peculiarity abort high. (30) The later ripening period. Simultaneous annealing, for the tail connection strength weak. Content on oil decrease (8%). Sensitive to Cycloconium, Bractocera oleae and Gleosporium olivarum. Resistant to cold and drought.



UNAFKA (*Olea europaea* L. Subsp. *Oleaster* Hoffmans & Link)

Variety with origin from Berat area. Destination oil. Small population. Homogeneous distribution in the population of cv. Kryps Berat for which is good pollinating. The tree selected for morphological and molecular description is 400 years of age and geographic position: N 40:41'38.01", E 20:00'22.01", H: 152m.

The **tree** is moderately vigorous, crown polyconic, multiple branches and twigs. Inter-junction short (1.5-2, 1cm).

Leaf elliptical-spear form, plate, short length (36) and narrow (8). Plate longitudinal rib strong green color on the upper side and gray on the bottom side. The ratio L / l (4.5). Small area (211mm²).

Cluster has average length (26-28). The number of flowers in cranth average (15), the position (1: 9: 5). Average structure tall and compact. Panicle form.

Black-violet fruit, oval, slightly symmetric, weight (1.69g), pulverized epicarp with numerous lenticels. Average length (D = 16.3), the maximum transverse diameter, central (12.7) Rap. D / d (1.3). Rap. Pulp / Endocarp (3.3).

Endocarp has average weight (0.39g). oval shaped, symmetrical easily, hard surface, Number of furrows average (6.4).

Rooting capacity low, early flowering time, autosteril, high peculiarity abortion (28%). Annealing average early scalable. The strength of the tail connection average. Introduced in average later production. 15% oil. Resistant to *Cycloconium*, *Bractocera*, and *Gleospodium olivarum*. Resistant to cold. Resistant to drought. Resistant to lime.



Summary:

In our country, origins of native genotypes with use value comes:
Of *Olea europaea* species *L.ssp sativa*, Genotype with sporadic populations, From the continuous improvement of *Olea europaea* L.
ssp oleaster.

The country has great genetic diversity Of whom, some of them have a population, hey have use value and have economic significance Because the surface of their cultivation occupies over 5% of the total olive area.

This catalog presents the main features of 40 olive varieties *Olea europaea* L. *ssp sativa* and *oleaster*

References

- Bartolini, G., Prevost G., Messeri C.** and Carignani G. (1998). Olive germplasm: Cultivars and orld-wide collections. FAO Rome.
- Blazquez-Martinez, J. M.,** (1996). History of Olive Tree, The World Olive Encyclopaedia, IOOC. Madrid, pp19-54.
- Fiorino, P., Nizzi Griffi F.** (1992). The Spread of Olive Farming, *Olivae*, 44, 9-13.
- Forbes, H. and Foxhall L.** (1978). The queen of all trees. Preliminary notes on the archaeology of the olive. *Expedition*, 21: 37-47.
- Gixhari B., Dias S., Hodaj B., Ismaili H.,** Vrapci H. (2014-a). GEO-INFORMATION ANALYSIS OF FRUIT TREE SPECIES, *Agric-Forestry*, Vol. 60. Issue 1, 63-74.
- Hadjisavvas, S.** (2003). "Aspects of the Economy of the Olive in the Late Bronze Age." In *The Olive and Its Oil from Antiquity to Today*. Proceedings of the International Conference, Hellenic Folklore Research Centre (ed.), Athens, 49-62.
- Hammond, N.G.LK.,** (1971). Dating of some Burials in tumuli in South Albania "BSA", 66, p. 229-241.

- Hanschmann, E. Milojcic, Vi.** (1976). Die deutschen Ausgrabungen auf der Argissa- Magula in Thessalien III : Diefriihe und beginnende mittlere Bronnereit, Bonn.
- Islami, S. Ceka, H.,** (1965). Te dhena te reja mbi lashtesine ilire ne territorin e Shqiperise, Premiere Conference des Études albanologiques, Tirane, f. 441-456.
- Ismaili, H. (2010).** Olive. Creation of primary sources of olive multiplication, scientific research, 173p. (in Alb).
- Ismaili, H., Gixhari, B., Osmani, R.** (2013). THE DIVERSITY OF GENETIC RESOURCES IN THE ALBANIAN OLIVE. Agriculture & Forestry, Vol. 59. Issue 3: 35-46, Podgorica. UDC (UDK) 633.852. 73(496.5).
- Killiank, K.** (1985). L' Albanie meridionale à l' age du bronze recent, *Iliria* 2, 175-178.
- Koppen W. 1923.** Die Klimate der Erde. De Gruyter. pp. 83-123.
- Korkuti, M.** (1982). Die Sieglungen der Spaten Bronze-und der Fruhen Eisenzeit in Sudwest-Albanien, Siidosteuropazwischen 1600 und 1000 v.Chr. Berlin.
- Loukas M., C. B. Krimbas,** (1983). History of Olive Cultivars Based on the Generic Distances, J.Hort.Science, 58:121-127.